



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 2, 2020

Edward Bockrath  
Product Registration Manager  
FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

Subject: Registration Review Label Mitigation for Thifensulfuron-methyl and Tribenuron-methyl  
Product Name: T-PAC HERBICIDE  
EPA Registration Number: 279-9635  
Application Date: 12/18/2017  
Decision Number: 545468

Dear Mr. Bockrath:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Thifensulfuron-methyl and Tribenuron-methyl Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Erik Kraft by phone at 703-308-9358, or via email at [Kraft.Erik@epa.gov](mailto:Kraft.Erik@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is written in a cursive style with a large, looping initial "E".

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure

# T-PAC™

HERBICIDE

THIFENSULFURON METHYL	GROUP	2	HERBICIDE
TRIBENURON METHYL	GROUP	2	HERBICIDE

**Soluble Granule**  
**For Use on Wheat (including durum), Barley, Oat, Triticale and Fallow**

<b>Active Ingredients</b>	<b>By Weight</b>
Thifensulfuron-methyl	
Methyl 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]-2-thiophenecarboxylate	25%
Tribenuron-methyl	
Methyl 2-[[[N-(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]benzoate	25%
<b>Other Ingredients</b>	<b>50%</b>
<b>TOTAL</b>	<b>100.0%</b>

Contains 0.25 lb Thifensulfuron Methyl per pound      **EPA Est. No.** \_\_\_\_\_  
 Contains 0.25 lb Tribenuron Methyl per pound      **Nonrefillable Container**      **Refillable Container**  
 EPA Reg. No. 279-9635      Net: \_\_\_\_\_      OR      Net: \_\_\_\_\_

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

**FIRST AID**

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.  
 Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION!** Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling.  
 For medical emergencies involving this product, call toll free 1-800-331-3148.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

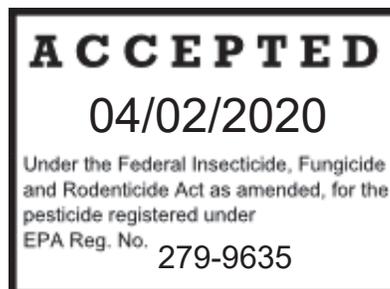
**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made out of any waterproof material.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.



FMC Corporation  
 2929 Walnut Street  
 Philadelphia PA 19104



## USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. DO NOT contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

### Groundwater Advisory

This product has properties and characteristics associated with chemicals detected in groundwater. This product may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this product from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### Windblown Soil Particles Advisory

This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

### Non-target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

T-PAC™ herbicide is for use on wheat (including durum), barley, oat, triticale and fallow in many states. Check with your state extension or Dept. of Agriculture before use, to be certain T-PAC™ herbicide is registered in your state.

To the extent consistent with applicable law, FMC will not be responsible for losses or damages resulting from the use of this product in any manner not specified by FMC.

## **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls.

Chemical-resistant gloves made of any waterproof material.

Shoes plus socks.

## **PRODUCT INFORMATION**

T-PAC™ herbicide is a soluble granule that is used for selective postemergence weed control in wheat (including durum), barley, oat, triticale and fallow. The best control is obtained when T-PAC™ herbicide is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment

T-PAC™ herbicide is noncorrosive, nonflammable, nonvolatile, and does not freeze. T-PAC™ herbicide must be mixed, and completely dissolved in water and applied as a uniform broadcast spray.

## **RESTRICTIONS**

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- **DO NOT** apply to wheat, barley, oats, and triticale underseeded with another crop.
- **DO NOT** harvest wheat or barley sooner than 45 days after the last application of T-PAC™ herbicide.
- **DO NOT** apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- **DO NOT** use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply T-PAC™ herbicide by air in the state of New York.

## **PRECAUTIONS**

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- Take all necessary precautions to avoid all direct or indirect contact (including spray drift) with non-target plants or areas.

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, oats, and triticale.

Dry, dusty field conditions may result in reduced control in wheel track areas.

T-PAC™ herbicide must not be applied to wheat, barley, oats, and triticale that is stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

Wheat, barley, oats, and triticale may differ in their response to various herbicides. FMC advises that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of T-PAC™ herbicide to a small area.

Under certain conditions, including heavy rainfall, prolonged cold weather (daily high temperature less than 50°F), or wide fluctuations in day/night temperatures prior to or soon after T-PAC™ herbicide application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix T-PAC™ herbicide with 2,4-D (ester formulations perform best—see “Tank Mixtures” section of this label) and apply after the crop is in the tillering stage of growth.

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.).

### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

T-PAC™ herbicide is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to 3 weeks after application to weeds, leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

T-PAC™ herbicide provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of T-PAC™ herbicide may be affected in crops stressed from adverse environmental conditions (including extreme temperatures or moisture), abnormal soil conditions, cultural practices, or variations in crop variety. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to T-PAC™ herbicide.

### **WEED RESISTANCE MANAGEMENT**

T-PAC™ herbicide, which contains the active ingredients Thifensulfuron methyl and Tribenuron methyl is a group 2 herbicide based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices.

Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of T-PAC™ herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your FMC representative, local retailer, or county extension agent.
- Contact your FMC representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. **DO NOT** assume that each listed weed is being controlled by multiple sites

of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.

- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 2 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 2 herbicides.
- Avoid making more than two applications of T-PAC™ herbicide and any other Group 2 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, including mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

### **INTEGRATED PEST MANAGEMENT**

FMC recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

### **RATE CONVERSION CHART FOR T-PAC™ HERBICIDE**

<b>Ounces of T-PAC™ herbicide/A</b>	<b>Pounds of T-PAC™ herbicide /A</b>	<b>Active Ingredient</b>	<b>Pounds of Active Ingredient/A</b>
0.4	0.025	Thifensulfuron methyl	0.0063
		Tribenuron methyl	0.0063
0.6	0.0375	Thifensulfuron methyl	0.0094
		Tribenuron methyl	0.0094
0.8	0.05	Thifensulfuron methyl	0.0125
		Tribenuron methyl	0.0125
1.0	0.0625	Thifensulfuron methyl	0.0156
		Tribenuron methyl	0.0156

## LABELLED USES

T-PAC™ herbicide provides selective postemergence control of certain broadleaf weeds in wheat (including durum), barley, oat (spring and winter), triticale, post-harvest burndown, pre-plant burndown and fallow.

### Wheat (Including Durum), Barley, and Triticale

Application and Use Rate Information	Use Rates (oz of T-PAC™ herbicide per acre)	Active Ingredient	Pounds of Active Ingredient per acre
Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible. Apply 0.4 to 1.0 oz T-PAC™ herbicide per acre.  Sequential treatments of T-PAC™ herbicide may be made provided the total amount of T-PAC™ herbicide applied to the crop per year does not exceed 1.0 oz/A.	0.4 to 1.0	Thifensulfuron methyl	0.0063 to 0.0156
		Tribenuron methyl	0.0063 to 0.0156
<p><b>RESTRICTIONS in Wheat (including durum), Barley, and Triticale:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply to wheat, barley, or triticale crops underseeded with another crop.</li> <li>• <b>DO NOT</b> harvest wheat or barley sooner than 45 days after the last application of T-PAC™ herbicide.</li> <li>• <b>DO NOT</b> apply more than 1.0 oz of T-PAC™ herbicide per acre in a single application (maximum active ingredient per single application is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).</li> <li>• <b>DO NOT</b> exceed two applications of T-PAC™ herbicide per year in Wheat (including durum), Barley and Triticale when using reduced rates.</li> <li>• <b>DO NOT</b> apply more than 1.0 oz of T-PAC™ herbicide per acre per year (maximum active ingredient load per year is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).</li> <li>• When applying 0.4 to 0.6 oz per acre, T-PAC™ herbicide must be used in a tank-mix combination with other registered herbicides.</li> <li>• The Minimum Retreatment Interval is 14 days.</li> <li>• PHI is 7 days for forage, 30 days for hay, and 45 days for wheat, barley and triticale.</li> </ul>			

**PRECAUTIONS in Wheat (including durum), Barley, and Triticale:**

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, and triticale.

T-PAC™ herbicide must not be applied to wheat, barley, and triticale that is stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

Wheat, barley, and triticale may differ in their response to various herbicides. FMC advises that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of T-PAC™ herbicide to a small area.

**TANK MIXTURES in Wheat (including durum), Barley, and Triticale:**

For expanded weed control, T-PAC™ herbicide may be tank mixed with approved labeled rates of other herbicides labeled for use in wheat (including durum), barley and triticale. Refer to the other product's label for rotational crop intervals and other directions for use. When applying 0.4 to 0.6 oz/A in wheat, barley and triticale, T-PAC™ herbicide must be used in a tank-mix combination with other registered herbicides.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

### Winter Oat

Application and Use Rate Information	Use Rates (oz of T-PAC™ herbicide per acre)	Active Ingredient	Pounds of Active Ingredient per acre
<p>Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.</p> <p>Apply 0.4 oz/A T-PAC™ herbicide for control of light populations of the weeds listed in Weeds Controlled table.</p> <p>In oat, T-PAC™ herbicide must be used in a tank-mix combination with other registered herbicides.</p>	0.4	Thifensulfuron methyl	0.0063
		Tribenuron methyl	0.0063
<p><b>RESTRICTIONS in Winter Oat:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply to oat crops underseeded with another crop.</li> <li>• <b>DO NOT</b> apply more than 0.4 oz/A of T-PAC™ herbicide in a single application (maximum active ingredient per single application is 0.0063 lb/A thifensulfuron methyl and 0.0063 lb/A tribenuron methyl).</li> <li>• <b>DO NOT</b> apply more than 0.4 oz/A of T-PAC™ herbicide per year (maximum active ingredient load per year is 0.0063 lb/A thifensulfuron methyl and 0.0063 lb/A tribenuron methyl) in Winter Oat.</li> <li>• <b>DO NOT</b> make more than one application (or more than 0.0063 lb/A of active ingredient tribenuron-methyl) of T-PAC™ herbicide per year on Winter Oat.</li> <li>• The REI is 12 hours.</li> </ul>			

#### PRECAUTIONS in Winter Oat:

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than oat.

T-PAC™ herbicide must not be applied to oat that is stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5-leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

Oat may differ in their response to various herbicides. FMC advises that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of T-PAC™ herbicide to a small area.

#### TANK MIXTURES in Winter Oat:

For expanded weed control, T-PAC™ herbicide must be tank mixed with approved labeled rates of other herbicides labeled for use in winter oat. Refer to the other product's label for rotational crop intervals and other directions for use.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

### Spring Oat

Application and Use Rate Information	Use Rates (oz of T-PAC™ herbicide per acre)	Active Ingredient	Pounds of Active Ingredient per acre
<p>Make applications after the crop is in the 3-leaf stage but before jointing.</p> <p>Apply 0.4 oz/A T-PAC™ herbicide for control of light populations of the weeds listed in Weeds Controlled table.</p> <p>In oat, T-PAC™ herbicide must be used in a tank-mix combination with other registered herbicides.</p>	0.4	Thifensulfuron methyl	0.0063
		Tribenuron methyl	0.0063

#### RESTRICTIONS in Spring Oat:

- **DO NOT** apply to oat crops underseeded with another crop.
- **DO NOT** apply more than 0.4 oz/A of T-PAC™ herbicide in a single application (maximum active ingredient per single application is 0.0063 lb/A thifensulfuron methyl and 0.0063 lb/A tribenuron methyl).
- **DO NOT** apply more than 0.4 oz/A of T-PAC™ herbicide per year (maximum active ingredient load per year is 0.0063 lb/A thifensulfuron methyl and 0.0063 lb/A tribenuron methyl) in Spring Oat.
- **DO NOT** make more than one application (or more than 0.0063 lb/A of active ingredient tribenuron-methyl) of T-PAC™ herbicide per year on Spring Oat.
- The REI is 12 hours.
- **DO NOT** use on "Ogle", "Porter" or "Premier" varieties as crop injury can occur.

#### PRECAUTIONS in Spring Oat:

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than oat.

T-PAC™ herbicide must not be applied to oat that is stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5-leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

Oat may differ in their response to various herbicides. FMC advises that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of T-PAC™ herbicide to a small area.

**TANK MIXTURES in Spring Oat:**

For expanded weed control, T-PAC™ herbicide must be tank mixed with approved labeled rates of other herbicides labeled for use in spring oat. Refer to the other product’s label for rotational crop intervals and other directions for use.

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

**Pre-Plant Burndown**

Application and Use Rate Information	Use Rates (oz of T-PAC™ herbicide per acre)	Active Ingredient	Pounds of Active Ingredient per acre
<p>Apply T-PAC™ herbicide as a burndown treatment to wheat (including durum) and barley to control emerged weeds prior to, or shortly after planting (prior to emergence). Make applications when the majority of weeds have emerged and are actively growing. T-PAC™ herbicide can be used as a burndown treatment prior to planting other crops. See "CROP ROTATION" for the time interval required before planting.</p> <p>Apply 0.4 to 1.0 oz/A T-PAC™ herbicide as a burndown treatment prior to, or shortly after planting (prior to emergence).</p> <p>When applying 0.4 to 0.6 oz/A, T-PAC™ herbicide must be used in a tank-mix combination with other registered herbicides.</p> <p>Sequential treatments of T-PAC™ herbicide may also be made provided the total amount of T-PAC™ herbicide applied during one year does not exceed 1.0 oz/A.</p>	0.4 to 1.0	Thifensulfuron methyl	0.0063 to 0.0156
		Tribenuron methyl	0.0063 to 0.0156
<p><b>RESTRICTIONS for Pre-Plant Burndown (Wheat including durum, Barley, and other crops):</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> use less than 0.4 oz/A T-PAC™ herbicide, unless otherwise specified by FMC.</li> <li>• <b>DO NOT</b> apply more than 1.0 oz/A of T-PAC™ herbicide in a single application (maximum active ingredient per single application is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).</li> <li>• <b>DO NOT</b> apply more than 1.0 oz/A of T-PAC™ herbicide per year (maximum active ingredient load per year is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).</li> <li>• <b>DO NOT</b> exceed two applications of T-PAC™ herbicide per year for Pre-Plant Burndown (Wheat including durum, Barley, and other crops).</li> <li>• The Minimum Retreatment Interval is 14 days.</li> </ul>			

**TANK MIXTURES for Pre-Plant Burndown:**

T-PAC™ herbicide may be used as a pre-plant burndown treatment alone or tank mixed with approved labeled rates of other herbicides labeled for use as a pre-plant burndown product. Refer to the other product’s label for rotational crop intervals and other directions for use. When applying 0.4 to 0.6 oz/A as a pre-plant burndown treatment, T-PAC™ herbicide must be used in a tank-mix combination with other registered herbicides.

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

**Post-Harvest Burndown**

Application and Use Rate Information	Use Rates (oz of T-PAC™ herbicide per acre)	Active Ingredient	Pounds of Active Ingredient per acre
<p>T-PAC™ herbicide may be used as a burndown treatment to crop stubble when the majority of weeds have emerged and are actively growing. (See the “CROP ROTATION” section of this label for additional information).</p> <p>Apply T-PAC™ herbicide at 0.4 to 1.0 oz/A to crop stubble after harvest. Use the 1.0 oz/A rate when weed infestation is heavy and predominantly consists of those weeds listed under the “WEEDS PARTIALLY CONTROLLED” section of this label or when application timing and environmental conditions are marginal. T-PAC™ herbicide needs to be applied in combination with other suitable registered burndown herbicides.</p> <p>Sequential treatments of T-PAC™ herbicide may also be made provided the total amount of T-PAC™ herbicide applied in one year does not exceed 1.0 oz/A.</p>	0.4 to 1.0	Thifensulfuron methyl	0.0063 to 0.0156
		Tribenuron methyl	0.0063 to 0.0156
<p><b>RESTRICTIONS for Post-Harvest:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> use less than 0.4 oz/A T-PAC™ herbicide, unless otherwise specified by FMC.</li> <li>• <b>DO NOT</b> apply more than 1.0 oz/A of T-PAC™ herbicide in a single application (maximum active ingredient per single application is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).</li> <li>• <b>DO NOT</b> apply more than 1.0 oz/A T-PAC™ herbicide per year (maximum active ingredient load per year is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).</li> <li>• <b>DO NOT</b> exceed two applications of T-PAC™ herbicide per year for Post-Harvest Burndown when using reduced rates.</li> <li>• The Minimum Retreatment Interval is 14 days.</li> </ul>			

**TANK MIXTURES for Post-Harvest Burndown:**

T-PAC™ herbicide may be used as a post-harvest treatment to crop stubble and must be tank mixed with approved labeled rates of other herbicides labeled for use as a post-harvest burndown treatment. Refer to the other product’s label for rotational crop intervals and other directions for use.

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

**Fallow**

Application and Use Rate Information	Use Rates (oz of T-PAC™ herbicide per acre)	Active Ingredient	Pounds of Active Ingredient per acre
<p>T-PAC™ herbicide may be used as a fallow treatment, in the spring, summer or fall when the majority of weeds have emerged and are actively growing.</p> <p>Apply 0.4 to 1.0 oz/A T-PAC™ herbicide to fallow. The total amount of T-PAC™ herbicide cannot exceed 1.0 oz/A per year.</p> <p>When T-PAC™ herbicide is applied at a rate of 0.4 to 0.6 oz/A, T-PAC™ herbicide must be used in a tank-mix combination with other registered fallow herbicides. In fallow, T-PAC™ herbicide may be applied in combination with other suitable registered fallow herbicides including glyphosate plus 2,4-D (ester formulations work best) or glyphosate plus dicamba.</p>	0.4 to 1.0	Thifensulfuron methyl	0.0063 to 0.0156
		Tribenuron methyl	0.0063 to 0.0156

**RESTRICTIONS in Fallow:**

- **DO NOT** use less than 0.4 oz/A T-PAC™ herbicide, unless otherwise specified by FMC.
- **DO NOT** apply more than 1.0 oz/A T-PAC™ herbicide in a single application (maximum active ingredient per single application is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).
- **DO NOT** apply more than 1.0 oz /A T-PAC™ herbicide per year (maximum active ingredient load per year is 0.0156 lb/A thifensulfuron methyl and 0.0156 lb/A tribenuron methyl).
- **DO NOT** exceed two applications of T-PAC™ herbicide per year in Fallow when using reduced rates.
- The Minimum Retreatment Interval is 14 days.

**TANK MIXTURES in Fallow:**

T-PAC™ herbicide may be used as a fallow treatment and must be tank mixed with approved labeled rates of other herbicides labeled for use in fallow. Refer to the other product’s label for rotational crop intervals and other directions for use.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

## TANK MIXTURES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflict with this T-PAC™ herbicide, then **DO NOT** use in a tank mixture with T-PAC™ herbicide.

T-PAC™ herbicide may be tank mixed with one or more suitable registered herbicides to control weeds listed as suppressed, weeds resistant to T-PAC™ herbicide or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, **DO NOT** tank mix the herbicide with T-PAC™ herbicide.

T-PAC™ herbicide can also be mixed with registered fungicides, insecticides, or liquid fertilizer for use on wheat, barley, or fallow.

### *With Other Grass Control Products*

T-PAC™ herbicide can be tank mixed with grass control products. Antagonism generally does not occur. Under certain environmental conditions, however, antagonism to Group 1 graminicides can occur. This may be reduced by using the higher rate of the graminicide. FMC advises that you first consult your state experiment station, university, or extension agent, Agricultural dealer, or FMC representative as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of T-PAC™ herbicide and the grass product to a small area.

### *With Insecticides or Fungicides*

T-PAC™ herbicide may be tank mixed or used sequentially with insecticides (or fungicides) registered for use on cereal grains. However, under certain conditions (drought stress, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications of T-PAC™ herbicide with organophosphate insecticides may produce temporary crop yellowing or, in severe cases, crop injury. Test these mixtures in a small area before treating large areas. However, review all insecticide and fungicide labels for restrictions.

**DO NOT use T-PAC™ herbicide plus products containing malathion**, as crop injury will result.

### *With Liquid Nitrogen Solution Fertilizer*

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing T-PAC™ herbicide in fertilizer solution. **DO NOT** add T-PAC™ herbicide directly to liquid nitrogen fertilizer; the granules will not dissolve. T-PAC™ herbicide must be thoroughly mixed with clean water before it is added to liquid nitrogen fertilizer. If granules remain when the mixture is poured out, add more clean water and mix until all granules have disappeared. Ensure that the agitator is running when the T-PAC™ herbicide premix is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/4 qt - 1 qt per 100 gal of spray solution (0.06 -0.25% v/v) based on local guidance.

When using high rates of liquid nitrogen fertilizer solution in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or FMC representative for specific instructions before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with T-PAC™ herbicide and fertilizer mixture, ester formulations tend to be more compatible (see manufacturer's label). Additional surfactant is not needed when using T-PAC™ herbicide in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions.

**DO NOT** use low rates of liquid nitrogen fertilizer solution as a substitute for a surfactant.

**DO NOT** use with liquid fertilizer solutions with a pH less than 3.0.

## CROP ROTATION

Labeled crops may be planted at specified time intervals following application of labeled rates of T-PAC™ herbicide. Use the time intervals listed below to determine the required time interval before planting.

### Time Interval Before Planting\* (days after treatment with T-PAC™ herbicide)

Crop	Days
Barley, Rice, Triticale, and Wheat (including durum)	0
Soybeans	7**
Cotton, Field Corn, and Grain Sorghum	14**
Sugarbeets, Winter Rape, and Canola	60
Any other crop	45

\* Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.

\*\*Where T-PAC™ herbicide is used on light textured soils, including sands and loamy sands, extend time to planting by 7 additional days. Where T-PAC™ herbicide is used on high pH soils (>7.9), extend time to planting by 7 additional days.

## WEEDS CONTROLLED

T-PACT™ herbicide effectively controls the following weeds when used according to label directions:

Annual knawel	London rocket
Annual sowthistle	Marshelder
Black mustard	Mayweed chamomile
Blue/Purple mustard	Miners lettuce
Broadleaf dock	Narrowleaf lambsquarters
Bur buttercup	Nightflowering catchfly
Bushy wallflower/Treacle mustard	Pennsylvania smartweed
Canada thistle *	Pineappleweed
Clasping pepperweed	Prickly lettuce*
Coast fiddleneck	Prostrate knotweed
Common buckwheat	Prostrate pigweed
Common chickweed	Redmaids
Common cocklebur *	Redroot pigweed
Common groundsel	Russian thistle*
Common lambsquarters	Scentless chamomile/mayweed
Common ragweed *	Shepherd's-purse
Common sunflower	Slimleaf lambsquarters
Corn chamomile	Smallflower buttercup
Corn gromwell *	Smallseed falseflax
Corn spurry	Stinking chickweed
Cowcockle	Stinking mayweed/dogfennel
Cress (mouse-ear)	Sunflower
Curly dock	Swinecress
False chamomile	Tansymustard
Field chickweed	Tarweed fiddleneck
Field pennycress	Tumble/Jim Hill mustard
Filaree (redstem, Texas)	Volunteer canola
Flixweed	Volunteer lentils
Green smartweed	Volunteer peas
Henbit	Wild buckwheat*
Kochia *	Wild chamomile
Ladysthumb	Wild mustard
Lanceleaf sage *	

## WEEDS PARTIALLY CONTROLLED\*\*

T-PACT™ herbicide partially controls the following weeds when used according to label directions:

Catchweed bedstraw	Marestail
Mallow (common, little)	Nightshade (cutleaf, hairy)

\* See SPECIFIC WEED PROBLEMS for more information.

\*\*Partial control: A visual reduction of weed population as well as a significant loss of vigor. For better results, use the highest specified rate of T-PACT™ herbicide per acre and include a tank mix partner including 2,4-D, MCPA, bromoxynil containing herbicides or dicamba containing herbicides.

## SPECIFIC WEED PROBLEMS

**Canada thistle:** For control in wheat and barley, use 0.8 oz/A T-PAC™ herbicide plus surfactant when all thistles are 4" to 8" with 2" to 6" of new growth. Make the application in the spring. Control will be improved by using T-PAC™ herbicide in combination with 2,4-D, dicamba, WideMatch® herbicide, or Colt® AS herbicide. Refer to TANK MIXTURES.

**Common cocklebur, Common ragweed, Lanceleaf sage:** In wheat and barley, apply T-PAC™ herbicide at 0.4 to 0.8 oz/A in combination with 2,4-D at rates from 1/4 to 3/8 lb active ingredient (ester formulations work best) when weeds are small and actively growing. When using 1/4 lb active ingredient of 2,4-D, be sure to add surfactant at the rate of 1/4 to 1/2 quart per 100 gallons of spray solution (0.06 to 0.125% v/v--use the higher rate under stress conditions).

**Corn groomwell, Wild buckwheat:** For control in wheat and barley, use 0.8 oz/A T-PAC™ herbicide plus surfactant.

**Kochia, Russian thistle, Prickly lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use T-PAC™ herbicide in a tank mix with Colt + Sword® herbicide, Colt + Salvo® herbicide, dicamba and 2,4-D; or Bromoxynil (including Buctril® herbicide) and 2,4-D (3/4 - 1 pt Buctril herbicide + 1/4 - 3/8 lb active ingredient 2, 4-D ester). For improved broadleaf weed control including kochia, T-PAC™ herbicide can also be tank mixed with WideMatch® herbicide, Colt® AS herbicide or Starane® NXT herbicide. T-PAC™ herbicide must be applied in the spring when weeds are 2" to 4" tall or 2" to 4" across and are actively growing. Refer to the Tank Mixtures section of this label for additional details.

## SPRAY ADJUVANTS

Always include a spray adjuvant with applications of T-PAC™ herbicide. In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used.

Consult your Ag dealer or applicator, local FMC fact sheets, technical bulletins, and service policies prior to using an adjuvant system. If another herbicide is tank mixed with T-PAC™ herbicide, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40CFR 1001).

### *Nonionic Surfactant (NIS)*

- Apply 0.06 to 0.50% volume/volume (1/2 pt to 4 pt per 100 gal of spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. See the Tank Mixtures section of this label for additional information.

### *Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)*

- Apply at 1% volume/volume (1 gal per 100 gal spray solution) or 2% volume/volume under arid conditions.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

### *Special Adjuvant Types*

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by FMC product management. Consult separate FMC technical bulletins for detailed information before using adjuvant types not specified on this label.

### *Ammonium Nitrogen Fertilizer*

- Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN), including 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions.

## APPLICATION TIMING

Since T-PAC™ herbicide has very little or no soil activity, it controls only those weeds that have germinated; therefore, apply T-PAC™ herbicide when all or most of the weeds have germinated. Annual broadleaf weeds must be past the cotyledon stage, actively growing, and less than 4" tall or wide. Rainfall immediately after treatment can wash T-PAC™ herbicide off of weed foliage, resulting in reduced weed control. Several hours of dry weather are needed to allow T-PAC™ herbicide to be sufficiently absorbed by weed foliage.

## GROUND APPLICATION

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, use at least 10 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40" nozzle spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

Raindrop "RA" nozzles are not advised for T-PAC™ herbicide applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

## AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 2 to 5 GPA.

Use at least 3 GPA in Idaho, Oregon, or Utah.

This product is limited to ground application only in the State of New York.

See the **Spray Drift Management** section of this label.

## CHEMIGATION

**DO NOT** apply this product through any irrigation system.

## PRODUCT MEASUREMENT

T-PAC™ herbicide is measured using the T-PAC™ herbicide volumetric measuring cylinder. The degree of accuracy of this cylinder varies by + 7.5%. For more precise measurement, use scales calibrated in ounces.

## PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- **DO NOT** discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- Avoid storage of pesticides near well sites.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

## MIXING INSTRUCTIONS

**DO NOT** use with spray additives that alter the pH of the spray solution below pH 5.0 or above pH 9.0 as rapid product degradation can occur. Spray solutions of pH 6.0-8.0 allow for optimum stability of T-PAC™ herbicide.

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of T-PAC™ herbicide
3. Continue agitation until the T-PAC™ herbicide is fully dissolved, at least 5 minutes.
4. Once the T-PAC™ herbicide is fully dissolved, maintain agitation and continue filling tank with water.
5. As the tank is filling, add tank mix partners and then add the required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. **DO NOT** use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of T-PAC™ herbicide.
6. Dispersed tank mix partners can settle if the tank mixture is not continually agitated. If settling occurs, thoroughly reagituate before using.
7. Apply T-PAC™ herbicide spray mixture within 24 hours of mixing to avoid product degradation.
8. If T-PAC™ herbicide and a tank mix partner are to be applied in multiple loads, fully dissolve the T-PAC™ herbicide in clean water prior to adding to the tank.

## GRAZING

Allow at least 7 days between application and grazing of treated forage. In addition, allow at least 7 days between application and feeding of forage from treated areas to livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock. Harvested straw may be used for bedding and/or feed. Allow at least 45 days between application and harvesting of grain.

## SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's instructions for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop. For additional information on spray drift refer to Spray Drift Management section of label.

Continuous agitation is not required for T-PAC™ herbicide but may be required to keep tank-mix partners in solution or suspension. Refer to tank-mix partner labels for additional information.

## SPRAYER CLEANUP

The spray equipment must be cleaned before T-PAC™ herbicide is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in "After Spraying T-PAC™ herbicide" in this label.

## AT THE END OF THE DAY

It is advised that during periods when multiple loads of T-PAC™ herbicide are applied, at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

## AFTER SPRAYING T-PAC™ HERBICIDE AND BEFORE SPRAYING CROPS OTHER THAN WHEAT AND BARLEY

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of T-PAC™ herbicide as follows:

1. Empty the tank and drain the sump completely.
2. Spray the tank walls with clean water using a minimum volume of 10% of the tank volume. Circulate the water through the lines, including all by-pass lines, for at least two minutes. Flush the boom well and empty the sprayer. Completely drain the sump.
3. Repeat step 2.
4. Remove the nozzles and screens and clean separately in a bucket containing water.

The rinsate solution may be applied to the crop(s) specified on this label. **DO NOT** exceed the maximum-labeled use rate. If cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

### Notes:

1. Always start with a clean spray tank.
2. Steam-cleaning aerial spray tanks is advised to facilitate the removal of any caked deposits.
3. When T-PAC™ herbicide is tank mixed with other pesticides, all cleanout procedures for each product must be examined and the most rigorous procedure must be followed.
4. In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products must be followed as per the individual labels.

## MANDATORY SPRAY DRIFT MANAGEMENT

### Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Aerial Applications:

- **DO NOT** release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use one-half swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## SPRAY DRIFT MANAGEMENT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control.

While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

## BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aurally to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### Handheld Technology Applications:

- Take precautions to minimize spray drift.

## DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution.

Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

## IDENTIFICATION INFORMATION FOR PRODUCTS REFERENCED IN THIS LABEL

REGISTERED PRODUCTS REFERENCED IN THIS LABEL FOR TANK MIXTURES OR MENTIONED FOR OTHER REASONS		
Product Name	Active Ingredient(s)	EPA Registration Number
WideMatch® herbicide	clopyralid and fluroxypyr	62719-512
Colt® AS herbicide	clopyralid and fluroxypyr	34704-1019
Colt + Salvo® herbicide	fluroxypyr and 2,4-D	34704-1010
Colt + Sword® herbicide	fluroxypyr and MCPA	34704-1011
Buctril® herbicide	bromoxynil	264-437
Starane® NXT herbicide	bromoxynil and fluroxypyr	62719-557

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store product in original container only. Store in a cool, dry place.

**Pesticide Disposal:** Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation. Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down):** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners:** Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**Refillable Fiber Drums With Liners:** Refillable container (fiber drum only). *Refilling Fiber Drum:* Refill this fiber drum with T-PAC™ herbicide containing thifensulfuron methyl and tribenuron methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. *Disposing of Fiber Drum and/or Liner:* Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

**All Other Refillable Containers:** Refillable container. *Refilling Container:* Refill this container with T-PAC™ herbicide containing thifensulfuron methyl and tribenuron methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact FMC at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact FMC at the number below for instructions. *Disposing of Container:* Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Outer Foil Pouches of Water Soluble Packets (WSP):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact CHEMTREC (Transportation and Spills) at 1-800-424-9300, day or night.

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